Student Internship Opportunity: Software Development and Application, Mesh Generation, and Computational Geometry

Date and Duration of Position: Summer 2011 positions available. Applications accepted until April 1 for a position starting at end of school year.

Software Package: Los Alamos Grid Toolbox (LaGriT) http://lagrit.lanl.gov

Position Description: The student will gain experience in programming languages using C and C-Fortran as a member of a team working on a large mesh generation software package, LaGriT. Continuing tasks include:
- Test and document existing code.
- Enhance and test existing code and algorithms.
- Develop, test and document new algorithms and code.

Software development tools used in the work will include some or all of the following:
- Absoft, Totalview, gfortran, and GNU products on Linux.
- Visualization software for mesh work includes AVS, GMV, and TecPlot.
- Version control software using Hg, Mercurial.
- Scripting languages such as C Shell, Perl, and Python and Makefile usage on Linux platforms.

The student intern is expected to work on a topic of mutual interest towards a tangible goal and a great deal of freedom exists in the choice and scope of a project. Opportunities for technically advanced work performed here are available to publish in a journal or conference. The student intern will be expected to present final results in an oral presentation and or poster form along with other students working in the Computational Earth Science Group, EES-16.

Major(s): Computer Science, Math, and related fields.

Academic Attainment: Undergraduate

Specialized Skills: Programming experience in C and Fortran preferred but not required; experience with Linux or UNIX-like systems; experience or course work in mesh generation or computational geometry is desirable.

Instructions to Student Applicants: To submit a letter of interest for this position please select the "Submit" link below. In the body of your email message explain why you are interested in the position and how your background makes you well qualified. Attach a current resume as a document, text or PDF file and then send the message to the address provided.

Thank you for your interest in pursuing a student internship at Los Alamos National Laboratory.

SUBMIT TO: ees16001@lanl.gov